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Air We Breathe Put Under Suspicion by Cancer Scientists

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A scientific team led by an authority on environmental cancer believes every community has its own atmospheric potential for causing lung cancer and that it's high time these individual potentials were minutely investigated.

Dr. W. C. Hueper, chief of the environmental cancer section of the National Cancer Institute, and his five associates investigated only four potentials from the atmospheres of eight American cities and found all of them capable of causing cancer—in mice.

The four potentials were aromatic and aliphatic hydrocarbons which the exhausts of motor vehicles and industrial plants put into the atmosphere. The eight cities were Atlanta, Birmingham, Cincinnati, Detroit, Los Angeles, New Orleans, San Francisco and Philadelphia.

No Direct Comparison

Particles of these four chemical fractions were dissolved and injected into mice and invariably gave rise to cancers at the sites of injection. Because mice are not people and because injection site cancers are not lung cancer, the scientists made no direct comparisons among cities.

But their evidence indicated each city had a different potential which involved much more than four chemical fractions in pure form. Also involved were the effects of varying climates and amounts of sunshine on these and other ingredients of atmospheric pollution.

But it was clear to them that "every community has an atmospheric carcinogenic (cancer-causing) spectrum which depends upon local conditions, which include not only industrial activities and traffic conditions but also climate, solarization (exposure to sunlight) and geologic conditions."

Hit Emphasis on Smoking

They were critical of the scientific evidence which has assigned to cigaret-smoking a principal role in the increasing rate of lung cancer. However, they thought the evidence "justifies the conclusion that cigaret smoking has contributed to or aggravated the action of other carcinogenic respiratory pollutants by producing especially functional disturbances of the bronchial mucosa.

"It would be most unwise, on the other hand, if through an exaggerated emphasis placed on the significance of cigaret smoking, the study of general and local industry-related air pollutants would be impaired or neglected.

"The available evidence rather definitely assigns to these factors an important role as human respiratory carcinogens. The obvious and proven lung cancer hazards related to these agents deserve serious attention especially since they can be controlled by proper sanitary and technologic measures."

"The present studies represent merely a first and preliminary step in a prolonged and comprehensive program dealing with relationships between air pollutants and health hazards, including cancers," they said in reporting to a technical organ of the American Medical Assn.

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